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Serial No.: 09/886,977
Atty. Docket No.: 112221.00102

REMARKS

In view of the above amendments and foregoing remarks, favorable reconsideration in this application is respectfully requested. Claims 26-43 remain pending in the application. Since the claims have not been amended by this Response, no listing of claims is required.

Drawings

The Examiner objects to the drawings as not showing the overlapping relationship recited in claims 26 and 35. Applicant respectfully submits that the overlapping relationship is shown in at least figures 1a, 1b, 2, and 8b. Without limitation to the claims, those figures show an overlapping relationship between the first and second layers.

In Fig. 1a, which is an exploded view of the invention, a first layer 1 is shown having a pattern 5 thereon depicting an object. Behind layer 1 is seen a second layer 2, which is continuous and its surface is large enough, that the pattern depicted on the first layer at least partly extends over the second layer and covers at least a part of the second layer.

The situation, when the first and the second layer overlap can be seen also in Fig. 1b, which shows the target of the invention when it is ready for use. It is explicitly seen that the first layer is in overlapping relationship with the second layer.

Furthermore, Fig. 2 shows an embodiment of the target of the invention, in which the second layer is discontinuous and consists of three discrete regions designated by letters DR to depict a gun barrel and two tracks of a tank. These discrete regions, which constitute the second layer, are secured between the third and the first layer and although the first layer is not

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designated by a dedicated reference numeral, it can be readily appreciated that the first layer extends over the discrete regions, i.e. the first and the second layer is in overlapping relationship.

Fig. 8b shows a thermal image emulating an object to render it recognizable at night. The thermal image is produced by virtue of second layer having configuration of the object to be emulated. It can be readily appreciated that the second layer, which produces the thermal image recognizable through the first layer is in overlapping relationship with the first layer.

Accordingly, Applicant respectfully requests that the objection to the drawings be withdrawn since the overlapping relationship is clearly shown in at least figures 1a, 1b, 2, and 8b.

Specification

The Examiner objects to the Abstract. A new Abstract is submitted on a separate sheet herewith. It is respectfully submitted that the Abstract is acceptable and that the objection be withdrawn.

Claim Rejection – 35 U.S.C. §112

The Examiner rejects claims 26-43 under 35 U.S.C. §112, 1st paragraph as failing to comply with the enablement requirement. Claims 26-43 were further rejected under 35 U.S.C. §112, 1st paragraph, as failing to comply with the written description requirement.

The Examiner contends that the drawings do not illustrate any overlapping relationship. As discussed above with respect to the Examiner's objection to the drawings, at least Figures 1a, 1b, 2, and 8b show a first layer in an overlapping relationship with a second layer. The

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Examiner recognizes that the specification discloses the overlapping relationship in many instances. It is respectfully submitted that one of ordinary skill would be able to make and/or use the invention based on the written description and figures.

Claims 26-43 refer to subject matter, which is specifically mentioned in the specification in connection with the relevant drawings. For example, the application explicitly indicates that layers 1, 2 and 3 are shown in Figs. 1a, and 1b, and are superimposed so as to be in overlapping relationship. (See, page 9, lines 11-19). The discrete regions DR (seen in Fig. 2) are affixed to the rear layer and this two-layer structure, and is superimposed with the front layer. (See, page 13, lines 14-17). In other words, the intermediate layer is in an overlapping relationship with the first layer.

The Examiner further questions how the object can be detected in the dark by having the second layer coated with low emissivity coating. As discussed in the specification, the second layer is made of thin polyester film and consists of discrete regions that are coated by a low emissivity coating. (See, page 10, lines 16-30). Due to this coating, the discrete regions of the second layer produce thermal radiation having an intensity that is lower than the radiation of the rest of the structure (which does not refer to the second layer and is not coated by the low emissivity coating). By virtue of this provision, a thermal contrast is created, which consists of discrete “cold” regions with low emissivity. In the infrared specter, the “cold” regions are detectable on a “hot” neighboring background.

It should be born in mind that the thermal contrast is created without employing any dedicated source of energy, as is required in various prior art devices provided with heating means energized by an external source of energy to render detectable various locations of an

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object. Excluding the necessity in the external source of energy is an important advantage of the present invention, rendering it very simple, inexpensive and reliable.

The configuration of discrete regions of the second layer is deliberately chosen to simulate those regions of the object, which produce its thermal signature cues (tracks of a tank, engine or wheels of a vehicle, gun barrel etc.) and in reality these regions are "hot". It should be realized, however, that in the above-mentioned thermal contrast picture "cold" discrete regions present them.

In addition, the coated discrete regions of the second layer do not render detectable the pattern depicted, as the Examiner supposes. Rather, the pattern depicted on the first layer is detectable in visible specter, and not in the infrared specter. The coating, which coats the second layer, has nothing to do with the detection of the pattern carried by the first layer.

The Examiner also questions the use of the term "being configured" to depict various thermal signature cues. Applicant does not see the use of the words "being configured" or "depict" in the claims, and requests that, in the event the Examiner repeats the rejection, the Examiner more clearly set forth the rejection to particularly point out the claim or page and line numbers that are being objected to. Applicant notes, for instance, that the specification indicates that regions can be configured to depict various thermal signature cues of those areas of the simulated object that produce heat (page 10, lines 18-21). The specification clearly sets forth that the contour of the discrete regions of the second layer are configured (that is, shaped or cut out) to correspond to those regions of the object that which produce its thermal signature cues.

Thus, the Applicant respectfully submits that the application meets the written description requirement for the same reasons discussed above with respect to enablement. In addition, it is

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noted that the discrete regions coated by the low emissivity coating constitute, in fact, the second layer and render the object detectable at night by virtue of thermal contrast. The contrast is recognizable in infrared specter, not in visual specter.

Therefore, the Applicant respectfully submits that the application is enabling and meets the written description requirement. One of ordinary skill in the art would understand the invention, and be able to make and/or use the invention, based upon the written description and figures. Since the Examiner has not rejected the claims over prior art, the application should now be in condition for allowance.

In the event there are any questions relating to this Amendment or to the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that the prosecution of this application may be expedited.

Please charge any shortage or credit any overpayment of fees to BLANK ROME LLP, Deposit Account No. 23-2185 (112221.00102). In the event that a petition for an extension of time is required to be submitted herewith and in the event that a separate petition does not

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accompany this response, Applicant hereby petitions under 37 CFR 1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized above.

Respectfully submitted,

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ABSTRACT

Multi-spectral products for simulating military and civilian objects or for identification and marking of those objects. The multi-spectral products are provided with sandwiched structure having a first layer and a second layer, overlapping with the first layer. The first layer is patterned by an image of the object in question, which is recognizable in visual specter. The second layer is made of material, which is capable of producing thermal contrast detectable in infrared specter. The second layer produces thermal contrast without using dedicated source of energy and its configuration corresponds to thermal signature cue of the object.